SCH4U Energy Changes & Rates of Reaction	Thermochemical Equations

The combustion of methane, CH_4, releases 890.4 kJ/mol. That is, when one mole of methane is burned, 890.4 kJ are given off to the surroundings.

a) How much energy is given off when 2.00 mol of CH4 are burned? [-1780 kJ]
FIRST: Always write the BALANCED CHEMICAL EQUATION!

SECOND: Analyze using a ratio box!

b) How much energy is released when 22.4g of CH4 are burned? [-1240 kJ]

c) If you were to attempt to make 45.0g of methane from CO_2 and H_2O (with O_2 also being made), how much energy would be required? [2.50 x 103 kJ]

Homework:
p. 226 #1-4,
p. 232 #1-5